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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,757	10/29/2003	John A. Sollars JR.	2056B	6684

7590 11/30/2005  
John E. Vick, Jr.  
Legal Department, M-495  
PO Box 1926  
Spartanburg, SC 29304

EXAMINER

CULBRETH, ERIC D

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/696,757

Applicant(s)

SOLLARS, JOHN A.

Examiner

Eric Culbreth

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10-16, 18-20, 22-25 and 29-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-16, 18-20, 22-25 and 29-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings were received on 9/16/05. These drawings are not acceptable.
  - a. The drawing of Figure 11 constitutes new matter (there is no support in the original disclosure for the exact curved shape of joints 16'). The deficiency may be obviated by specifying in the description of Figure 11, say on page 19 where Figure 11 is described, that it is a "schematic" representation (i.e., not conveying exact structure or location). If this were done, it would not be necessary to resubmit drawings.
  - b. Also, a Brief Description of Figure 11 should be added to page 8 of the specification.
  - c. In Figure 1, the arrow heads and lead lines for reference numerals 14 do not align (i.e., the arrowheads are just floating on the figure).

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the jacquard weave (claims 24 and 32) and interconnected joints in the weft direction (claim 38) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

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is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following informalities:

At page 7, line 5 "210" should be "110" (the 9/16/05 amendment did not correct this).

On page 18, in paragraph 2 as amended, in the description of Figure 11 added at the end in the amendment of 9/16/05, "instruction" should apparently be "introduction".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. Claims 10-16, 24 and 36-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In claim 10, there is no antecedent basis for "the weft direction" and "the warp direction" in lines 4-5.

b. In claim 24, line 14 it is not clear which "yarns" are meant, as first and second yarns were previously recited in the claim.

c. A claim should be a single sentence. Hence claim 36 is indefinite (a new sentence begins in line 2 and in the next to last line; also note that subparagraphs b, c, and d end in periods, which is improper).

d. Also in claim 36, subparagraph (d) "and/or" is indefinite, failing to positively define structure.

### ***Claim Rejections - 35 USC § 102***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 10-12, 14-15, 18-19, 22, 25, 29, 31, 33-34 and 36-37 as best understood are rejected under 35 U.S.C. 102(b) as being anticipated by Buchner et al (US Patent 3,792,873, of record).

As shown in Figure 3 Buchner et al discloses an air bag cushion comprising a woven fabric bag 1 having a face portion formed of a first fabric layer 5a, a rear portion formed by a second fabric layer 5b, and woven in joints 6 which define flow barriers between the first and second layers 5a, 5b. As shown in Figure 4, the first fabric layer 5a is defined by warp yarns 21 and weft yarns 24, and the second fabric layer 5b is

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defined by warp yarns 22 and weft yarns 25. The fabric layers 5a, 5b are interwoven to form the woven in joints (see column 3, lines 36-55 and column 4, line 65 through column 5, line 14). As shown in Figure 4, the woven in joints are separated by eight yarns. Regarding new claims 36-37, the joint seams form pillowed inflatable chambers and the joints run in the warp direction. The fabric layers 5a, 5b are made of polyester or nylon (column 5, lines 15-17).

Regarding the remarks filed 9/16/05, Buchner et al's bag forms first and second layers inasmuch as applicant's disclosure, with the layers having closely spaced joints and swapping yarns between layers inasmuch as applicant's invention.

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 13, 16, 20, 24, 30, 32, 35 and 38 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchner et al '873.

Buchner et al '873 lacks joints separated by no more than four yarns. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Buchner et al '873 to reduce the separation of the joints to no more than four yarns in order to reduce the size of the inflatable areas between the joints and minimize the likelihood of joint failure. Further, such a modification involving a mere change in size is generally recognized as being within the level of ordinary skill in the art. Regarding

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claim 38, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Buchner et al '873 by orienting the joints in the weft direction since applicant has failed to establish any criticality of orienting the joints in this direction and it appears the joints would work equally well in either the warp or weft directions.

With respect to claims 24 and 32, by applicant's own admission jacquard looms are well-known in the art. It would have been obvious to use a jacquard loom to construct Buchner et al's air bag because jacquard looms are well suited to complex shapes and computer controlled manufacturing.

Regarding applicant's remarks of 9/16/05, as noted above, Buchner et al '873 meets the claim limitations of two layers inasmuch as applicant's claimed invention.

9. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buchner et al '873 in view of Thornton et al (US Patent 5,098,125, of record).

Buchner et al lacks a dobby construction. Thornton et al '125 teaches an air bag cushion having interwoven fabric layers made of polyester (column 3, lines 49-50). The fabric layers are interwoven in such a way as to eliminate yarn floats (column 4, lines 48-68). The cushion is woven on an "electronic or computer-controlled dobby or harness regulator" (column 5, lines 9-12). From this teaching of Thornton et al '125, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Buchner et al '873 by providing using a dobby construction because

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such a construction is less complex and less costly than other woven constructions (e.g., jacquard).

Regarding the 9/16/05 comments, as noted above the combination meets the structure of the claimed invention, having first and second layers inasmuch as applicant's claimed invention.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



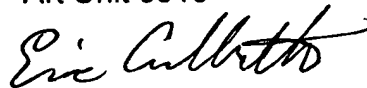
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Culbreth whose telephone number is 571/272-6668. The examiner can normally be reached on Monday-Thursday, 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571/272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric Culbreth  
Primary Examiner  
Art Unit 3616



ec



Entry Not  
Approved  
EC  
11/22/05

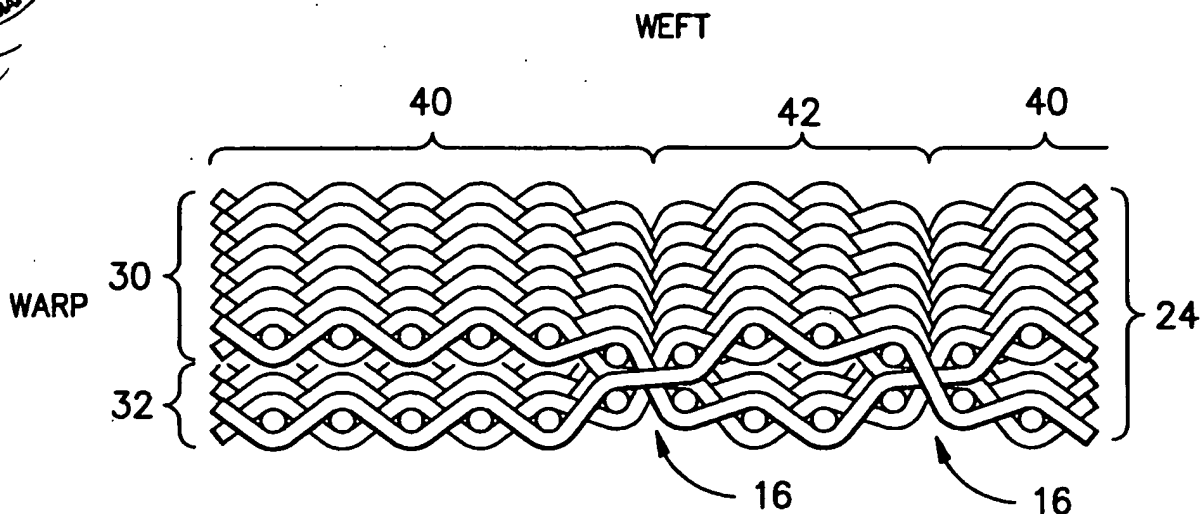


FIG. -5-

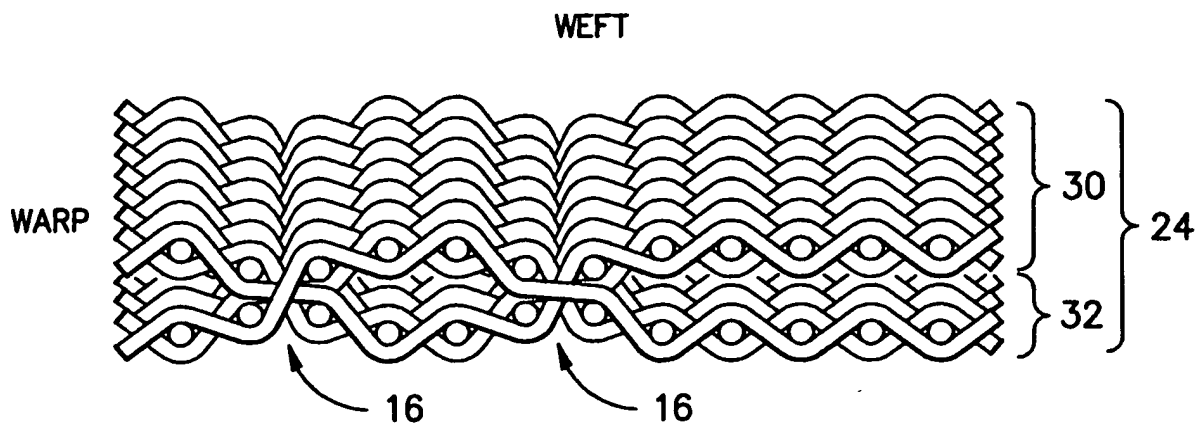


FIG. -6-